Natural Gas Analysis Report

GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	lost tank 18 facility production 1 (fmp) v-1010
Technician	Danny J
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	3-8-2023
Meter Number	16411p
Air temperature	71
Flow Rate (MCF/Day)	25435
Heat Tracing	Heated Hose & Gasifier
Sample description/mtr name	lost tank 18 facility production 1 (fmp) v-1010
Sampling Method	fill and empty
Operator	AKM MEASUREMENT
State	New Mexico
Region Name	Permian Resources
Asset	new mexico
System	east
FLOC	op-delne-bt010
Sample Sub Type	meter
Sample Name Type	ctb
Vendor	akm
Cylinder #	27798
Sampled by	jonathan aldrich
Sample date	3-7-2023
Analyzed date	3-8-2023
Method Name	C9
Injection Date	2023-03-08 14:09:13
Report Date	2023-03-08 14:07:12
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	80135ddf-b144-4dfd-b24e-da86f97ecc64
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	23176.5	1.5087	0.00006510	1.4924	0.0	0.01443	0.165	
Methane	789907.9	71.7938	0.00009089	71.0166	718.9	0.39336	12.091	
CO2	4248.3	0.2447	0.00005760	0.2420	0.0	0.00368	0.041	
Ethane	253314.9	14.0709	0.00005555	13.9185	246.9	0.14450	3.738	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	187121.2	7.6655	0.00004097	7.5825	191.2	0.11544	2.098	
iso-butane	58320.5	1.0090	0.00001730	0.9981	32.5	0.02003	0.328	
n-Butane	154085.2	2.6453	0.00001717	2.6166	85.6	0.05251	0.828	
iso-pentane	38587.0	0.5807	0.00001505	0.5744	23.0	0.01431	0.211	
n-Pentane	46221.7	0.6830	0.00001478	0.6756	27.1	0.01683	0.246	
hexanes	36033.0	0.4207	0.00001168	0.4162	19.8	0.01238	0.172	
heptanes	36586.0	0.3379	0.00000924	0.3342	18.4	0.01156	0.155	
octanes	17386.0	0.1325	0.00000762	0.1311	8.2	0.00517	0.067	
nonanes+	2822.0	0.0018	0.00000063	0.0018	0.1	0.00008	0.001	
Total:		101.0945		100.0000	1371.9	0.80429	20.142	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	101.0945		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	98.0		
Flowing Pressure (psia)	117.0		
Gross Heating Value (BTU / Ideal cu.ft.)	1371.9	1348.0	
Gross Heating Value (BTU / Real cu.ft.)	1378.1	1354.7	

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	101.0945	97.0000	103.0000	Pass	

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Lost Tank 18 CPF

Flare Date: 08/09/2023

Duration of event: 55 Minutes

MCF Flared: 163

Start Time: 04:35 PM

End Time: 05:30 PM

Cause: Emergency Flare > Equipment Malfunction > VRU > VFD Fault

Method of Flared Gas Measurement: Gas Flare Meter

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1. Reason why this event was beyond Operator's control:

The emissions were caused by the sudden, unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and maintenance practices. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this case, due to severe weather conditions affecting the area, sales gas had to be flared rather than be compressed when the facility's VRU suddenly and unexpectedly malfunctioned on a VFD fault. The minimal amount of gas flow allowed to be flare was done out of necessity to protect personnel and equipment as a safeguard.

2. Steps Taken to limit duration and magnitude of venting or flaring:

It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, due to severe weather conditions affecting the area, sales gas had to be flared rather than be compressed when the facility's VRU suddenly and unexpectedly malfunctioned on a VFD fault. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard. Several wells were shut in in order to have flaring cease.

3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:

Oxy is limited in its corrective actions to eliminate the cause and potential reoccurrence of a malfunctioning VRU, as notwithstanding proper VRU, design and operation, whether low- or high-pressure, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice, especially during severe weather conditions. OXY makes every effort to control and minimize emissions as much as possible during these circumstances. The limited actions that Oxy can do in this circumstance is to submit a work order for repair, work with its equipment maintenance team to have the issue resolved in a timely manner and continue monitoring the equipment until its repair and restoration to normal operations is complete.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 273541
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:

- this application's operator, hereinafter "this operator";
- venting and/or flaring, hereinafter "vent or flare";
- any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";
- the statements in (and/or attached to) this, hereinafter "the statements in this";
- and the past tense will be used in lieu of mixed past/present tense questions and statements.

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QUESTIONS

Action 273541

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 273541
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

QUESTIONS

Prerequisites	
Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.	
Incident Operator	**[16696] OXY USA INC**
Incident Type	**Flare**
Incident Status	**Closure Approved**
Incident Well	*Unavailable.*
Incident Facility	**[fAPP2226965761] Lost Tank 18 CPF**
Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.	

Determination of Reporting Requirements	
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional guidance.	
Was this vent or flare caused by an emergency or malfunction	Yes
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a vent or flare event	**Yes, minor venting and/or flaring of natural gas.**
An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.	
Was there **at least 50 MCF** of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of **ANY** liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the vent or flare within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Equipment Malfunction > VRU > VFD Fault

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	71
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	0
Oxygen (02) percentage, if greater than one percent	0
If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.	
Methane (CH4) percentage quality requirement	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (02) percentage quality requirement	0

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 273541
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	08/09/2023
Time vent or flare was discovered or commenced	04:35 PM
Time vent or flare was terminated	05:30 PM
Cumulative hours during this event	1

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	Cause: Other | Other (Specify) | Natural Gas Flared | Released: 163 MCF | Recovered: 0 MCF | Lost: 163 MCF.
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	Gas Flare Meter
Is this a gas only submission (i.e. only significant Mcf values reported)	**Yes, according to supplied volumes this appears to be a "gas only" report.**

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	No
Downstream OGRID that should have notified this operator	0
Date notified of downstream activity requiring this vent or flare	
Time notified of downstream activity requiring this vent or flare	*Not answered.*

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator’s control	True
Please explain reason for why this event was beyond this operator's control	The emissions were caused by the sudden, unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and maintenance practices. Internal Oxy procedures ensure that upon a sudden and unexpected flaring event, production techs are promptly notified, and are instructed to assess the issue as soon as possible to take prompt corrective action and minimize emissions. In this case, due to severe weather conditions affecting the area, sales gas had to be flared rather than be compressed when the facility’s VRU suddenly and unexpectedly malfunctioned on a VFD fault. The minimal amount of gas flow allowed to be flare was done out of necessity to protect personnel and equipment as a safeguard.
Steps taken to limit the duration and magnitude of vent or flare	It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, that is beyond Oxy's control to avoid, prevent or foresee, to minimize emissions as much as possible as part of the overall steps taken to limit duration and magnitude of flaring. The flare at this facility has a 98% combustion efficiency to lessen emissions as much as possible. In this case, due to severe weather conditions affecting the area, sales gas had to be flared rather than be compressed when the facility’s VRU suddenly and unexpectedly malfunctioned on a VFD fault. The minimal amount of gas flow allowed to be flared was done out of necessity to protect personnel and equipment as a safeguard. Several wells were shut in in order to have flaring cease.

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ACKNOWLEDGMENTS

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	Action Number: 273541
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

ACKNOWLEDGMENTS

☑	I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC.
☑	I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record.
☑	I hereby certify the statements in this amending report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
☑	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
☑	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

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CONDITIONS

Action 273541

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 273541
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

CONDITIONS

Created By	Condition	Condition Date
shelbyschoepf	If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	10/8/2023